



# ICE STORM 2003

## Kentucky Division of Forestry



### Will My Trees Survive?

The severe ice storm of February 2003 heavily damaged forests and community trees across a wide region in Kentucky. Tree owners face the dilemma of deciding whether a tree can be saved or whether it is damaged beyond repair. The information in this bulletin will help guide homeowners, landowners and tree consultants in assessing the impact of ice damage to hardwood trees so they can better determine their treatment options.

Some damage will not become evident until after the leaves emerge in the spring. Determining the full consequences of the ice storm will require periodic monitoring of tree health and external indicators of stress such as decay, fungi and insect pests.

Safety considerations require prompt removal of hazardous trees and branches. Once those are removed, harvesting other damaged trees may actually cause more damage to the remaining trees and lead to decreased timber values in the long run. Damaged trees may eventually develop symptoms of decay and wood discoloration that can affect tree value. However, this can take from one to several years to occur.



Don't be rushed into making rash decisions about trees that are not presently posing any hazard. First eliminate the safety concerns, then carefully and thoughtfully assess the remaining trees before taking any further action.

The likelihood that a damaged tree will survive the ice storm is closely related to the extent of loss of the live crown (the branches that make up the top of the tree). In general, the greater the crown loss, the less likely the tree will survive. However, other factors also influence survival, such as tree age (young trees may recover and old trees may not), species (weak-wooded species such as elm, soft maple and Bradford pear suffered the most damage) and its condition before the storm (healthy trees handle stress better than unhealthy ones).

The rules of thumb on the next page will help you recognize which trees have the best chance of surviving the ice storm and the stresses that will follow.

# Ice Damage Categories and Percent of Crown Loss

Maple Example

Birch Example



35% damage

## ***Light Damage: Less than 50% of the live crown is damaged***

Trees have a high chance of survival. Growth in some trees will slow due to loss of crown. Growth in lightly damaged or undamaged trees on the edges of disturbed areas may actually increase due to the reduced competition.



40% damage



50% damage

## ***Moderate Damage: From 50 to 75% of the live crown is damaged***

Many trees will survive with varying degrees of internal infections and growth reduction, depending on where in the crown breaks occur. Outer branch breakage will result in limited infection. Breakage of large tops and/or lower branches will result in more extensive infection. Shattered branch bases and torn bark increase the chances of infection. These trees will need periodic monitoring.



65% damage



80% damage

## ***Heavy Damage: More than 75% of the live crown is damaged.***

Trees with heavy damage have a low chance of survival. Surviving trees will probably become infected. Weigh wildlife habitat potential against the hazardous conditions before removal. If trees are removed, replace them with species that can handle the ice. Foresters can assist you with tree selection and proper planting.



75% damage

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